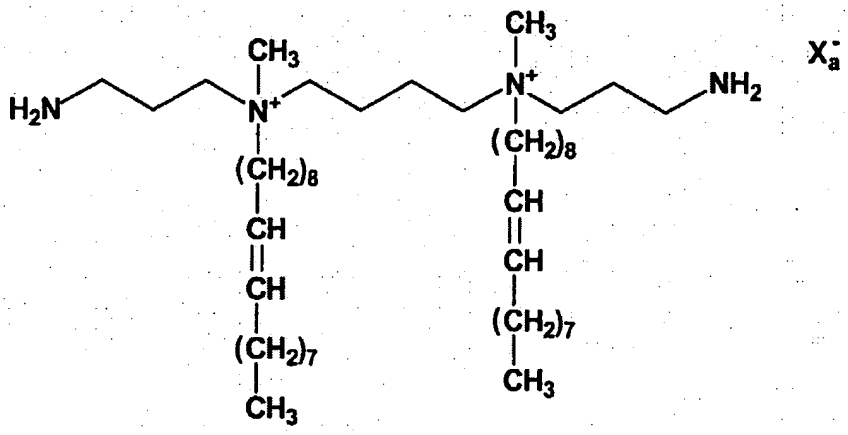
Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of the claims

1-9. (Canceled)

10. (Previously presented) A compound having the formula:

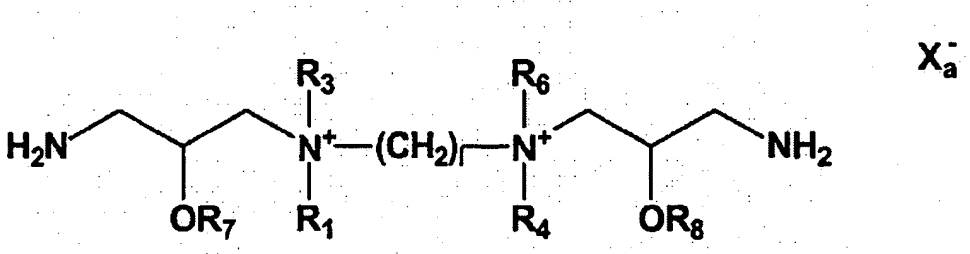


wherein

X^- is a physiologically acceptable anion; and a is the number of anions which is equal to the number of positive charges in the compound divided by the valence of the anion.

11. (Canceled)

12. (Previously presented) A compound having the formula:



wherein

X^- is a physiologically acceptable anion;

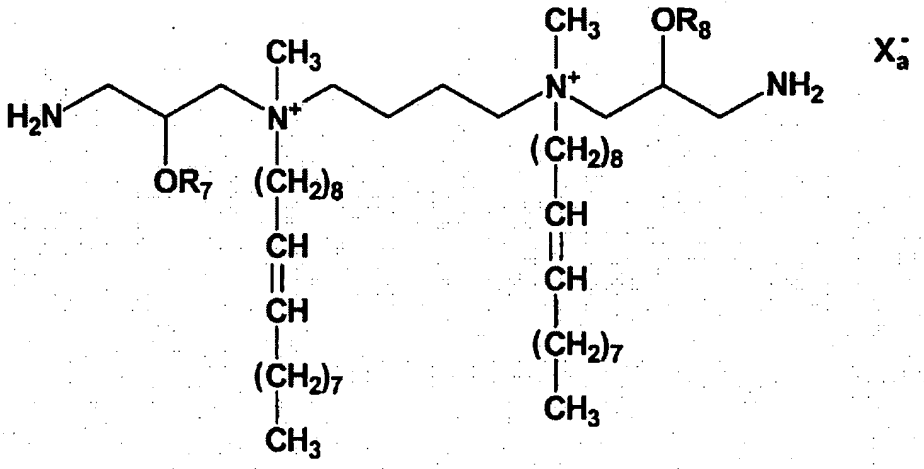
a is the number of anions which is equal to the number of positive charges in the compound divided by the valence of the anion;

R_1, R_3, R_4, and R_6, independently of one another, are selected from the group consisting of H, an alkyl group, an alkenyl group, an alkynyl group, and an aryl group, wherein any one of R_1, R_3, R_4, and R_6 are optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group, and at least two of R_1, R_3, R_4, and R_6, are straight-chain, branched, or cyclic alkyl, alkynyl, or alkenyl or aryl groups having from 8 to 24 carbon atoms attached to each N and R_1, R_3, R_4 and R_6 may optionally be covalently linked with each other;

R_7 and R_8 are independently H or a carbohydrate; and

l is an integer from 1 to about 4.

13. (Previously presented) The compound as claimed in claim 12, which is:

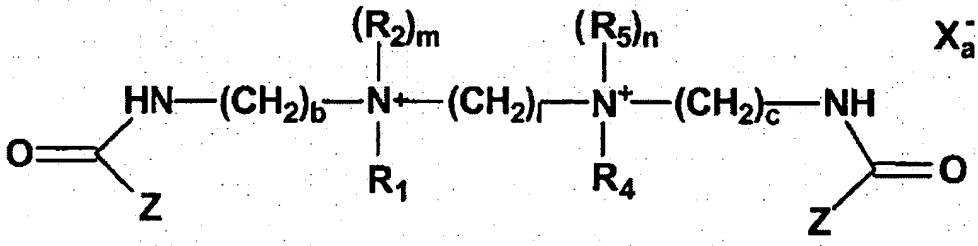


wherein R_7 and R_8 are independently H or a carbohydrate.

14. (Previously presented) The compound as claimed in claim 13, wherein R_7 and R_8 are H.

15. (Canceled)

16. (Currently amended) A compound having the formula:



wherein

R_1, R_2, R_4 and R_5, independently of one another, are selected from the group consisting of H, an alkenyl group, an alkynyl group, and an aryl group, and an alkyl group optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group, and at least two of R_1, R_2, R_4 and R_5 are a straight-chain, branched, or cyclic alkyl, alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms attached to each N;

Z is selected from the group consisting of spermiyl, spermidiyl, amino acid, peptidyl, diaminoalkyl, and polyamine;

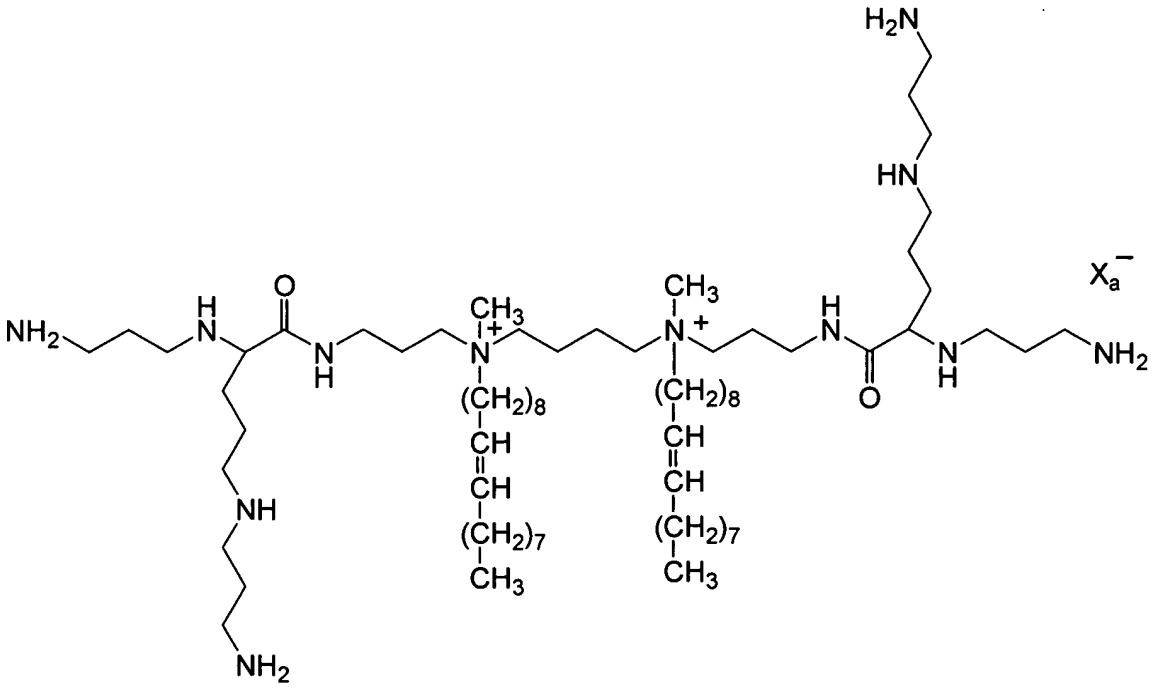
X^- is a physiologically acceptable anion;

m and n are1;

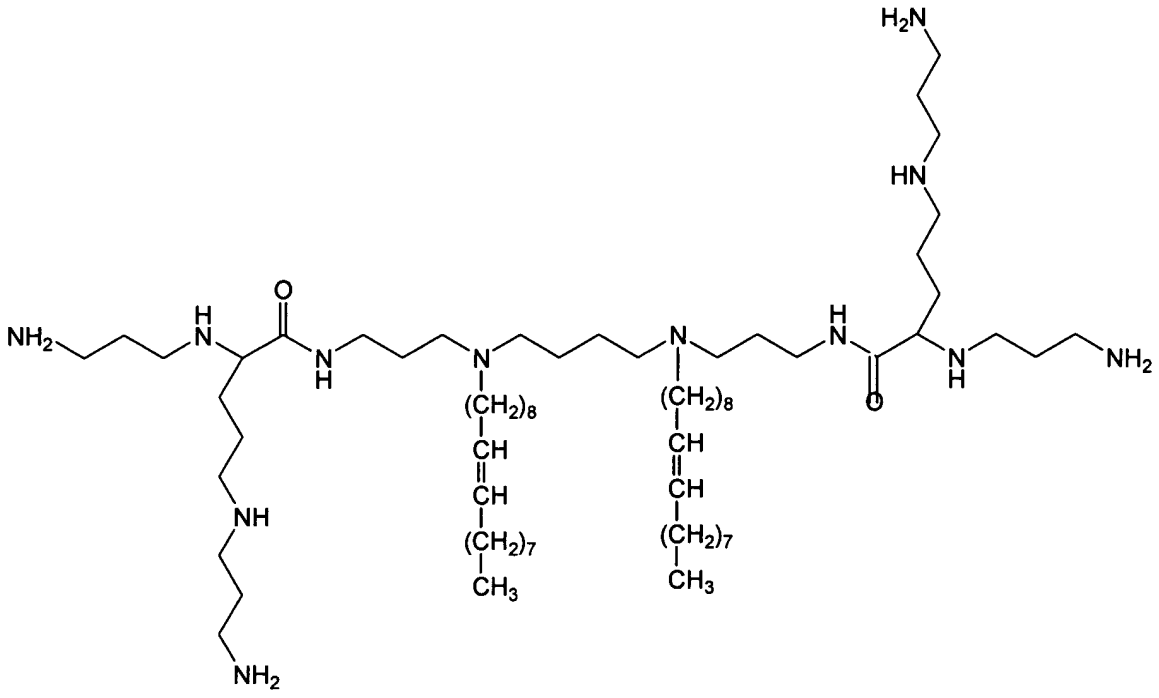
~~1~~ l, b and c are integers independently selected from 1 to about 4; and

a is the number of positive charges in the compound divided by the valence of the anion.

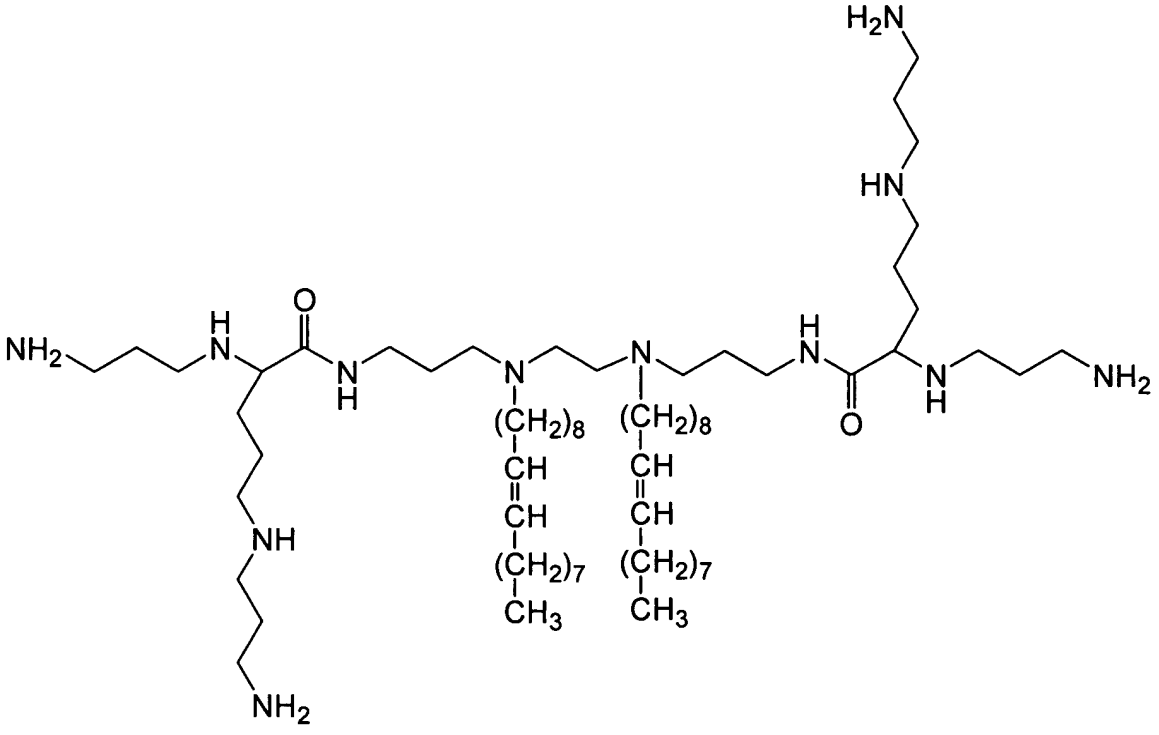
17. (Previously presented)The compound as claimed in claim 16, which is:



18. (Previously presented) The compound which is:

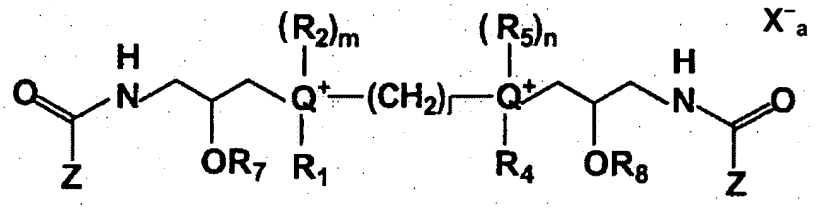


19. (Previously presented) The compound which is:



20. (Canceled)

21. (Previously presented) A compound having the formula:



wherein

Q is N;

X^- is a physiologically acceptable anion;

a is the number of anions which is equal to the number of positive charges in the compound divided by the valence of the anion;

R_1 and R_4, independently of one another, are selected from the group consisting of H, $-(CH_2)_p-D-Z$, an alkyl group, an alkyl ether group, an alkenyl group, an aryl group, and an alkyl or alkyl ether group substituted by one or more of an alcohol, an aminoalcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, an alkylthio, a urea, a thiourea, a guanidyl, or a carbamoyl group, R_1 and R_4 may optionally be covalently linked with each other, to form a cyclic moiety; at least one of R_1 and R_4 is a straight-chain, branched, or cyclic alkyl, alkenyl, or alkynyl group having from 8 to 24 carbon atoms;

R_2 and R_5, independently of one another, are selected from the group consisting of H, an alkenyl group, an alkynyl group, an aryl group, and an alkyl group optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

Z is selected from the group consisting of spermiyl, spermidyl, aminoacid, peptidyl, diaminoalkyl, and polyamine;

D is N, O, S, or a bond;

R_7 and R_8 independently are H or a carbohydrate;

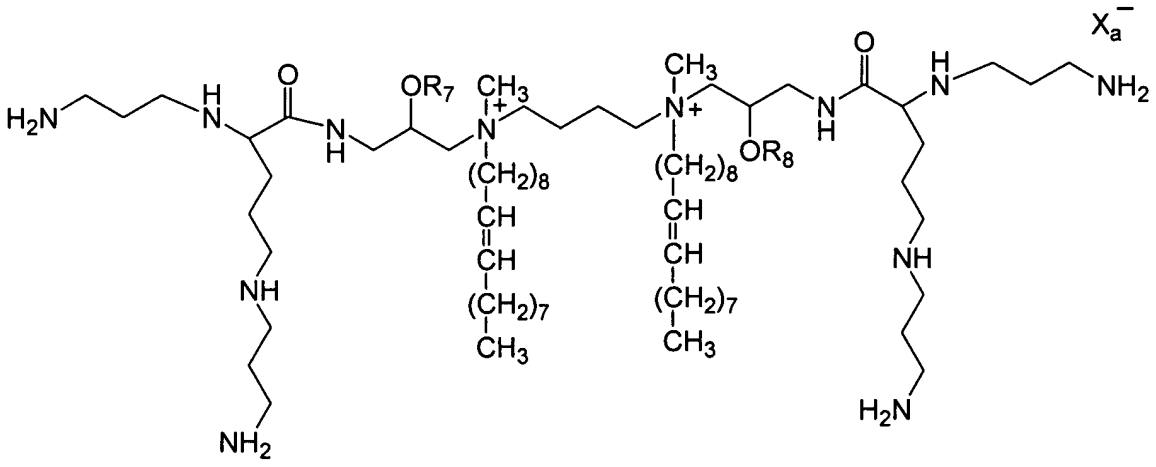
m and n are1;

l is an integer selected from 1 to about 4; and

p is an integer from 1 to about 10.

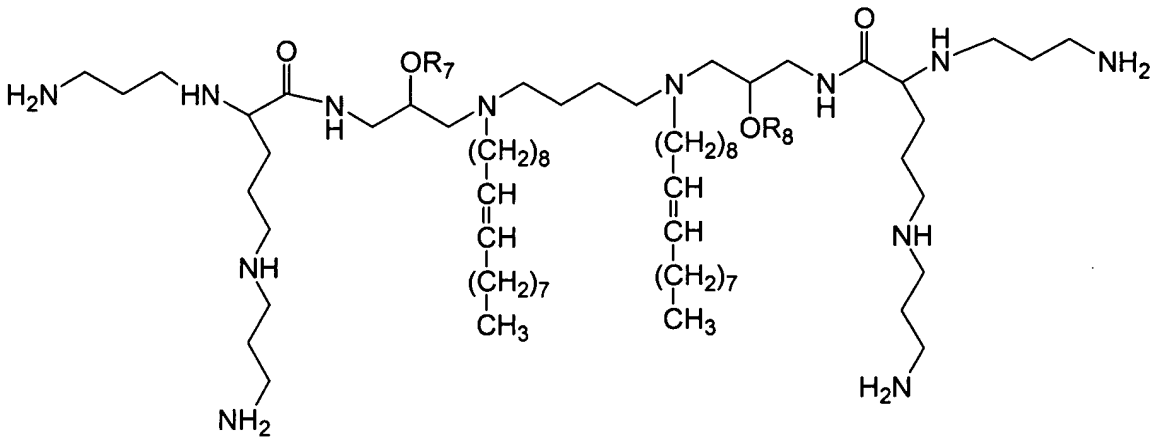
22. (Previously presented) The compound as claimed in claim 21 wherein R_7 and R_8 are H.

23. (Previously presented) The compound as claimed in claim 21 which is:



24. (Previously presented) The compound according to claim 23, wherein R_7 and R_8 are H.

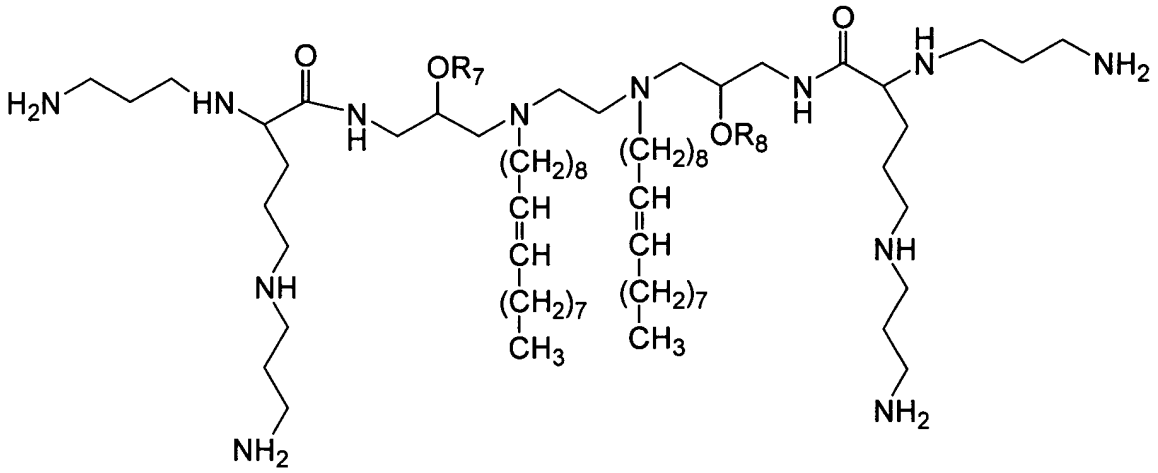
25. (Previously presented) The compound which is



wherein R_7 and R_8 independently are H or a carbohydrate.

26. (Previously presented) The compound as claimed in claim 25, wherein R_7 and R_8 are H.

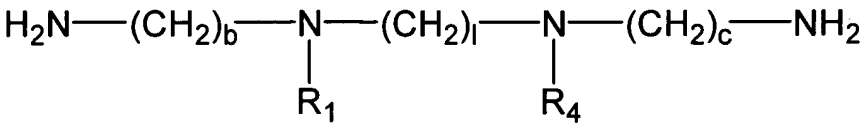
27. (Previously presented) The compound which is



wherein R_7 and R_8 independently are H or a carbohydrate.

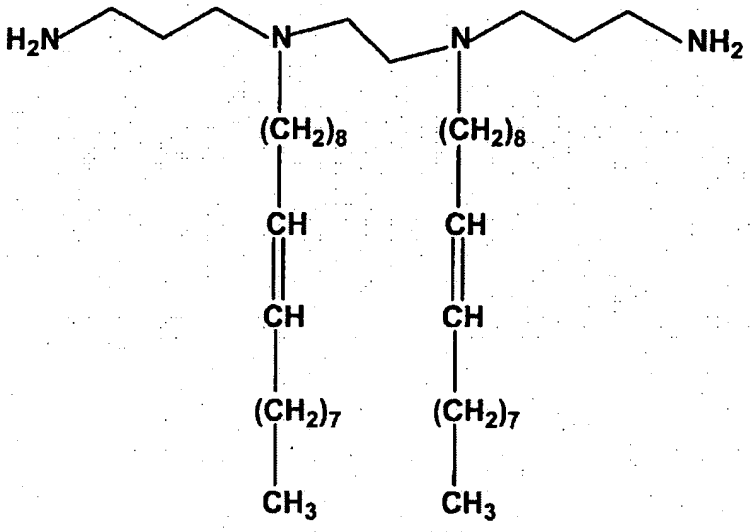
28. (Previously presented)The compound as claimed in claim 27, wherein R_7 and R_8 are H.

29. (Previously presented) A compound having the formula:

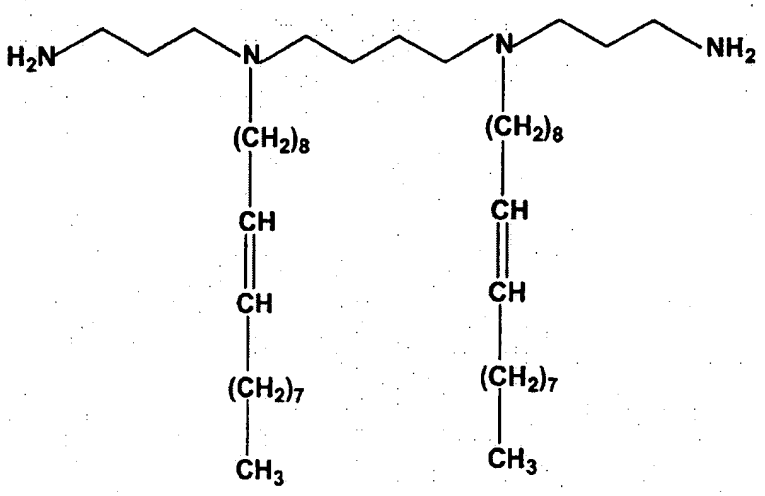


wherein each of R_1 and R_4 is a $-(CH_2)_8-CH=CH-(CH_2)_7-CH_3$ group; and l, b, and c are integers independently selected from 1 to about 4.

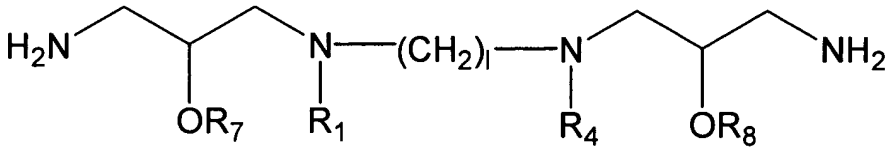
30. (Previously presented) The compound as claimed in claim 29, which is:



31. (Previously presented) The compound as claimed in claim 29, which is:



32. (Previously presented) A compound having the formula:



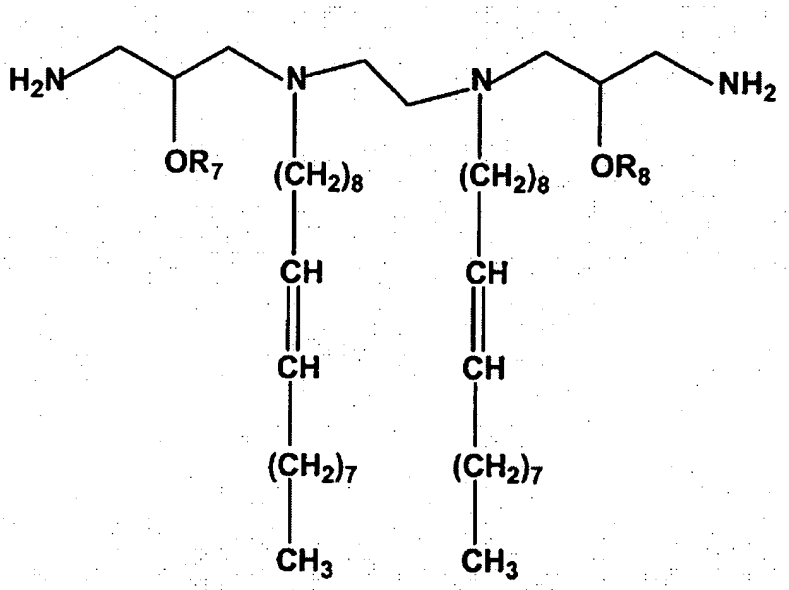
wherein

each of R_1 and R_4 is a straight-chain, branched, or cyclic alkenyl, or alkynyl group having 8 to 24 carbon atoms;

R_7 and R_8 are independently H or a carbohydrate; and

l is an integer independently selected from 1 to 4.

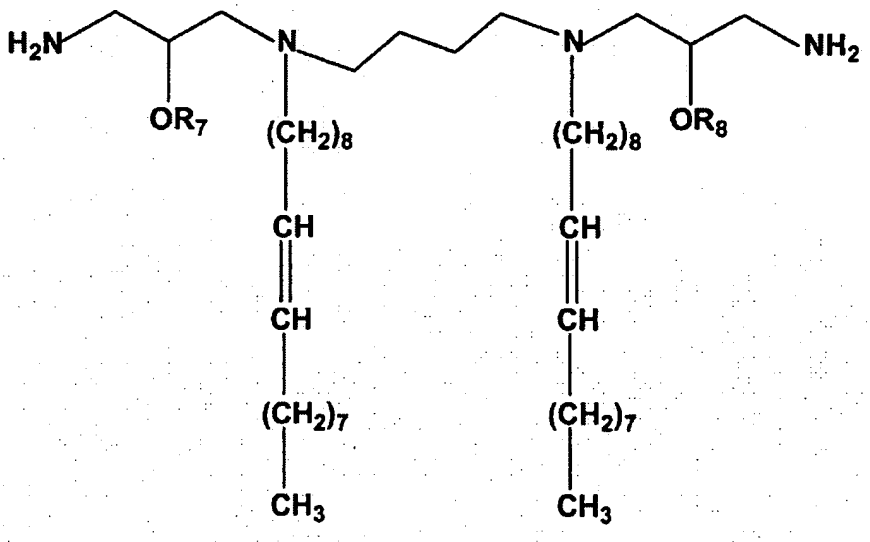
33. (Previously presented) The compound as claimed in claim 32, which is:



wherein R_7 and R_8 are independently H or a carbohydrate.

34. (Previously presented) The compound as claimed in claim 33, wherein R_7 and R_8 are H.

35. (Previously presented) The compound as claimed in claim 32, which is:

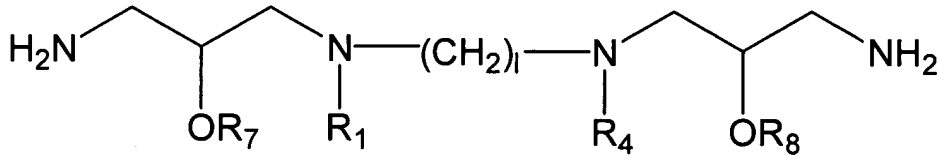


wherein R_7 and R_8 are independently H or a carbohydrate.

36. (Previously presented) The compound as claimed in claim 35, wherein R_7 and R_8 are H.

37. (Canceled)

38. (Previously presented) A compound having the formula:



wherein

l is 4,

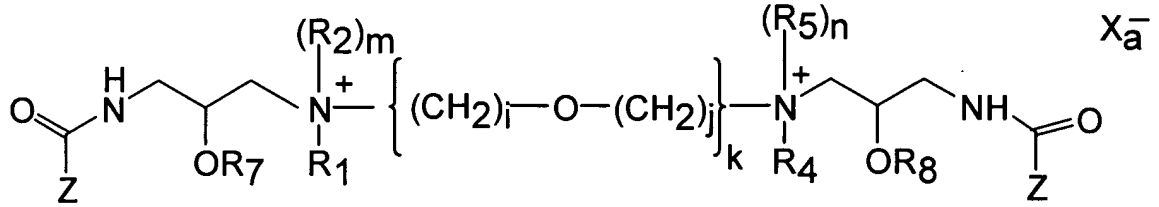
R_1 and R_4 are straight-chain alkyl groups having 14 or 16 carbon atoms, and

R_7 and R_8 are independently selected from H or a carbohydrate.

39. (Canceled)

40. (Previously presented) The compound as claimed in claim 38, wherein R_7 and R_8 are both H.

41. (Currently amended) A compound having the formula:



wherein

Z is selected from the group consisting of amine, spermiyl, carboxyspermiyl, guanidyl, spermidinyl, putricinyl, diaminoalkyl, pyridyl, piperidinyl, pyrrolidinyl, polyamine, amino acid, peptide and protein;

D is ~~Q~~ N, O, S, or a bond;

p is an integer from 1 to about 10;

R_1 and R_4, independently of one another, are selected from the group consisting of H, $-(CH_2)_p-D-Z$, an alkyl group, an alkenyl group, an aryl group, an alkynyl group, and an alkyl ether group wherein any one of R_1 and R_4 are optionally substituted by one or more of an alcohol, an aminoalcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, an alkylthio, a urea, a thiourea, a guanidyl, or a carbamoyl group, R_1, and R_4 may optionally be covalently linked with each other to form a cyclic moiety; and at least one of R_1 and R_4 is a straight-chain, branched, or cyclic alkyl, alkenyl, alkynyl or aryl group having from 8 to about 24 carbon atoms; and

R_2 and R_5, independently of one another, are selected from the group consisting of H, an alkenyl group, an alkynyl group, an aryl group and an alkyl group optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide; an ester, a mercaptan, a urea, a thiourea, a guanidyl and a carbamoyl group;

R_7 and R_8 are independently H or a carbohydrate;

X^- is a physiologically acceptable anion;

a is the number of positive charges in the compound divided by the valence of the anion;

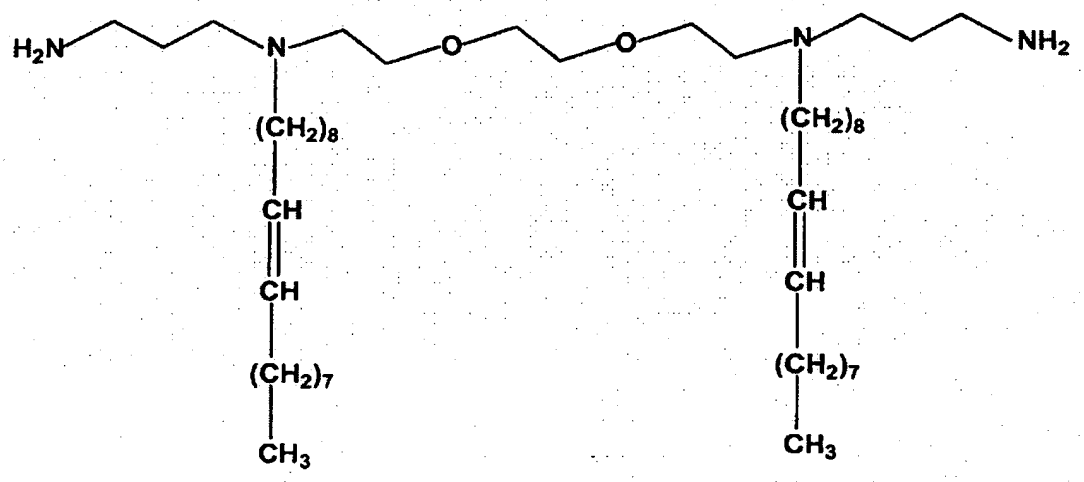
m and n are 1;

i and j are integers selected from 2 to about 3; and

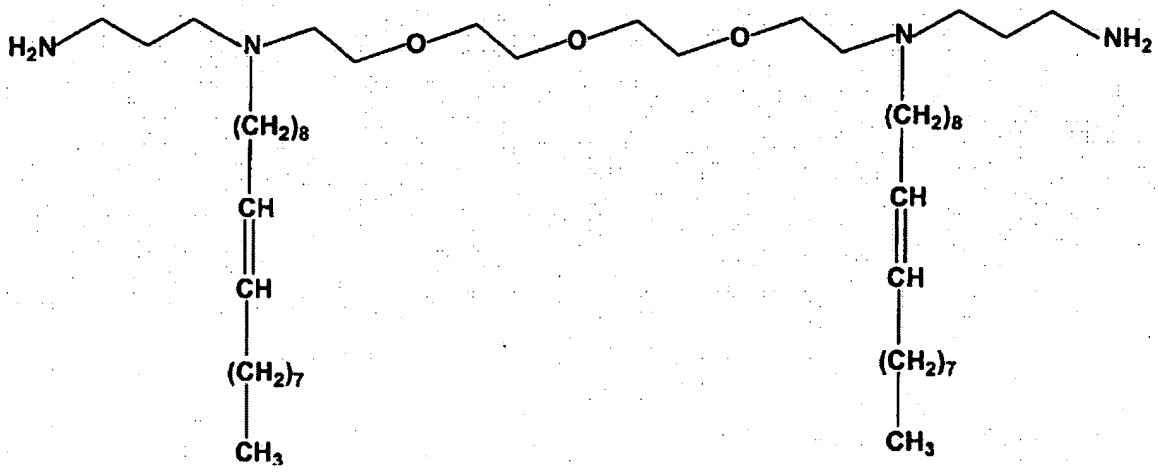
k is an integer selected from 1 to about 3.

42. (Canceled)

43. (Previously presented) A compound having the formula:

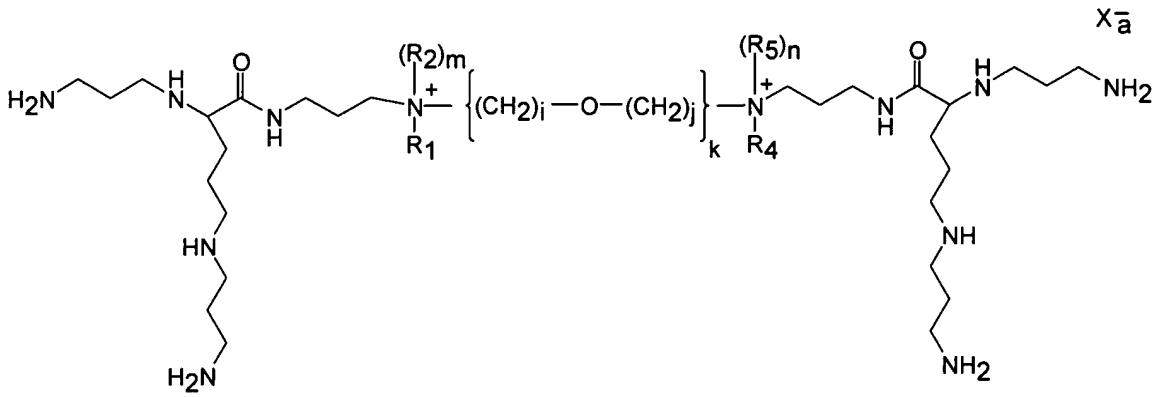


44. (Previously presented) A compound having the formula:



45. (Canceled)

46. (Previously presented) A compound having the formula:



wherein

each of R_1 and R_4 is a straight-chain, branched, or cyclic alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms;

R_2 and R_5, independently of one another, are selected from the group consisting of a, an alkenyl group, an aryl group, and an alkyl group optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

X^- is a physiologically acceptable anion;

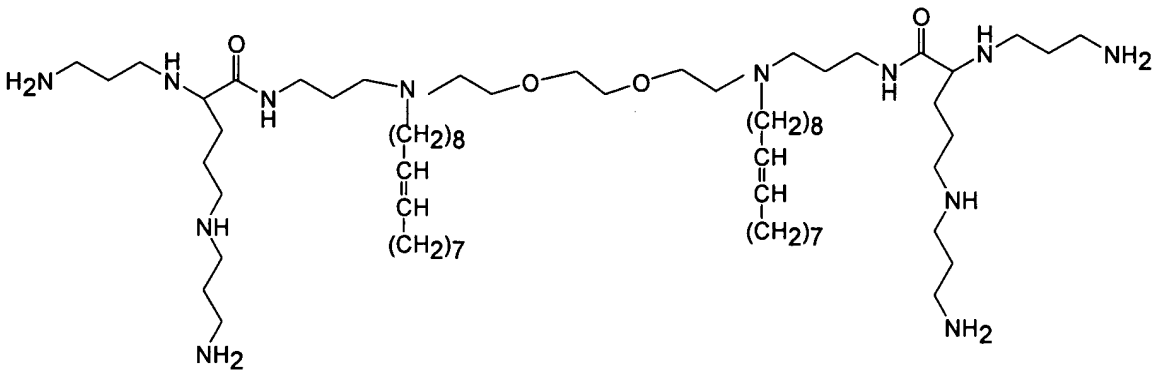
a is the number of positive charges in the compound divided by the valence of the anion;

m and n are1;

i and j are integers selected from about 2 to about 3; and

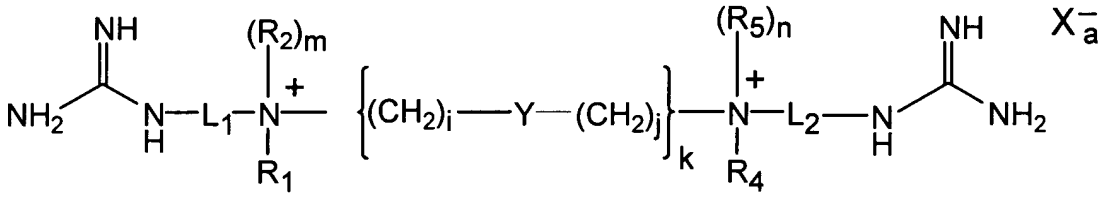
k is an integer selected from 1 to about 3.

47. (Previously presented). The compound which is:



48. (Canceled)

49. (Previously presented) A compound having the formula:



wherein

each of R_1 and R_4 is a straight-chain, branched, or cyclic alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms;

R_2 and R_5, independently of one another, are selected from the group consisting of an alkenyl group, an aryl group, and an alkyl group optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

m and n are 1;

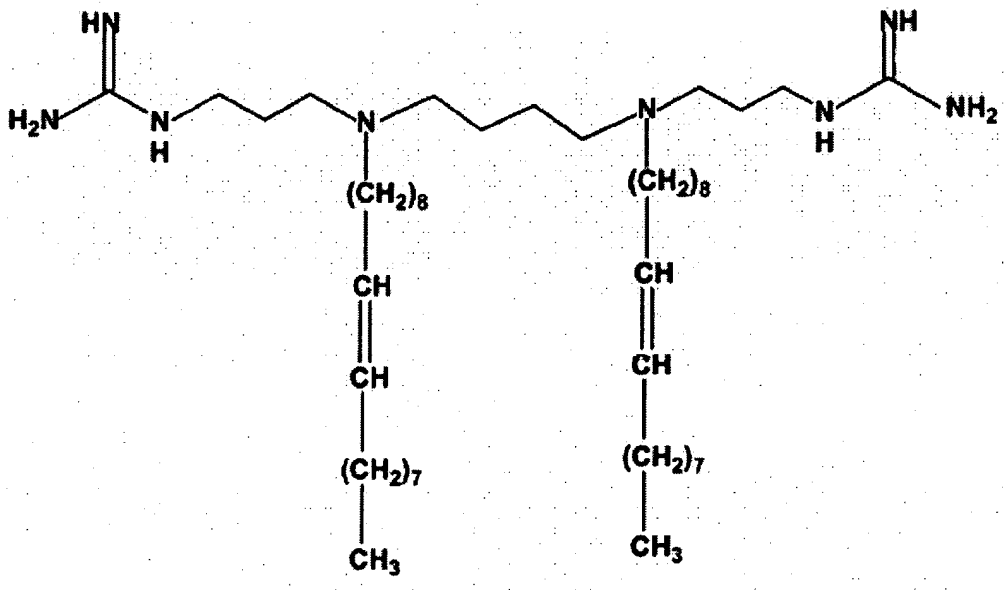
i and j are integers from about 2 to about 3;

k is an integer from 1 to about 3;

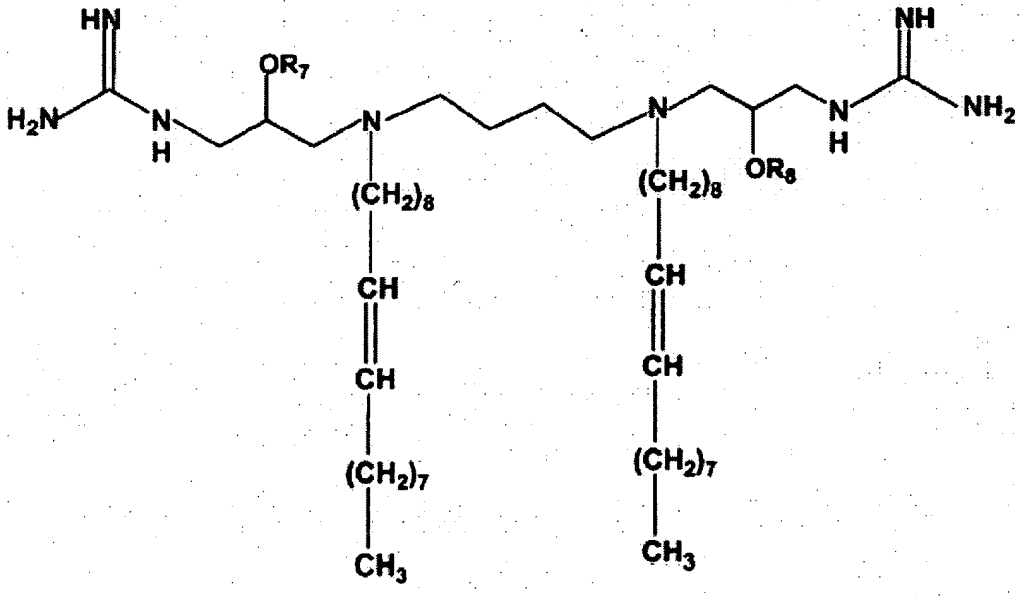
L_1 and L_2, independently from one another, are an alkylene or an alkylene ether; and

Y is selected from the group consisting of CH_2, O, S and NH.

50. (Previously presented) The compound which is:



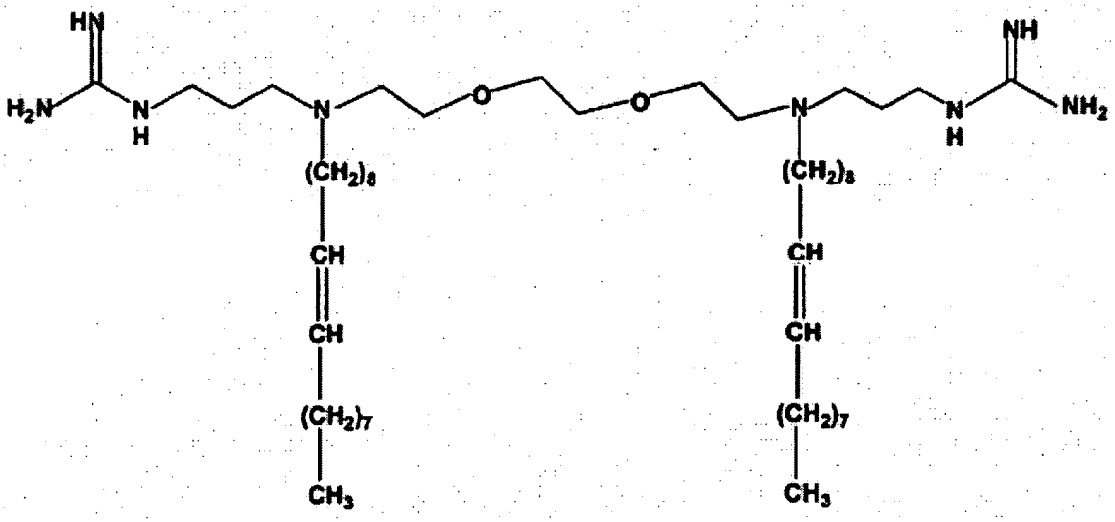
51. (Previously presented) A compound having the formula:



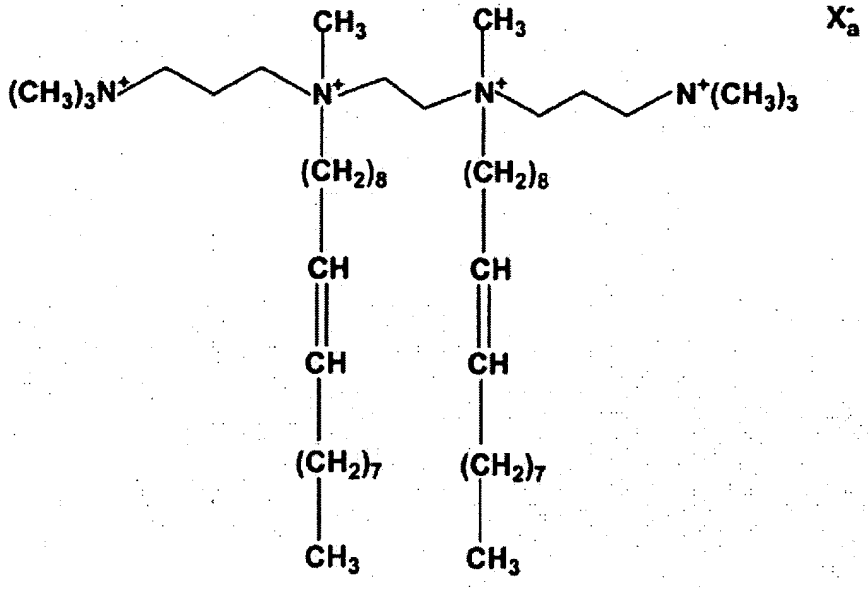
wherein R_7 and R_8 are independently H or a carbohydrate.

52. (Previously presented) The compound as claimed in claim 51, wherein R_7 and R_8 are H.

53. (Previously presented) A compound having the formula:



54. (Previously presented) A compound having the formula:

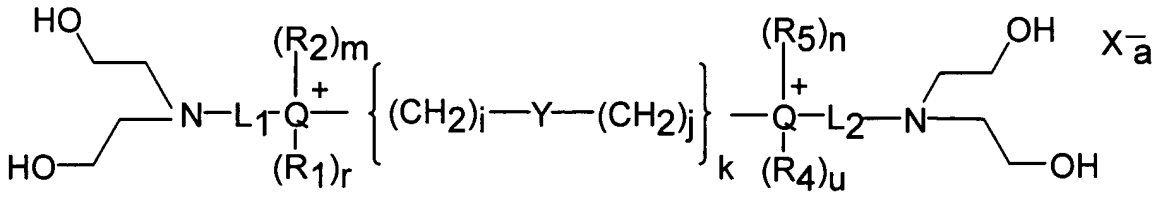


wherein

X^- is a physiologically acceptable anion; and

a is the number of positive charges in the compound divided by the valence of the anion.

55. (Previously presented) A compound having the formula:



wherein

Q is N;

X^- is a physiologically acceptable anion;

a is the number of anions which is equal to the number of positive charges in the compound divided by the valence of the anion;

R_1 and R_4, independently of one another, are selected from the group consisting of H, $-(CH_2)_p$–D-Z, an alkyl group, an alkyl ether group, an alkenyl group, an aryl group, and an alkyl or alkyl ether group substituted by one or more of an alcohol, an aminoalcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, an alkylthio, a urea, a thiourea, a guanidyl, or a carbamoyl group, R_1 and R_4 may optionally be covalently linked with each other, to form a cyclic moiety; and at least one of R_1 and R_4 is a straight-chain, branched, or cyclic alkyl, alkenyl, alkynyl or aryl group having from 8 to about 24 carbon atoms;

R_2 and R_5, independently of one another, are selected from the group consisting of H, an alkenyl group, an aryl group, and an alkyl group optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

Z is selected from the group consisting of amine, spermiyl, spermidyl, carboxyspermiyl, guanidyl, spermidinyl, putricinyl, pyridyl, piperidinyl, pyrrolidinyl, aminoacid, peptidyl, diaminoalkyl, and polyamine;

D is N, O, S, or a bond;

i and j are integers from about 2 to about 3;

k is an integer from 1 to about 3;

m, n, r and u are 1;

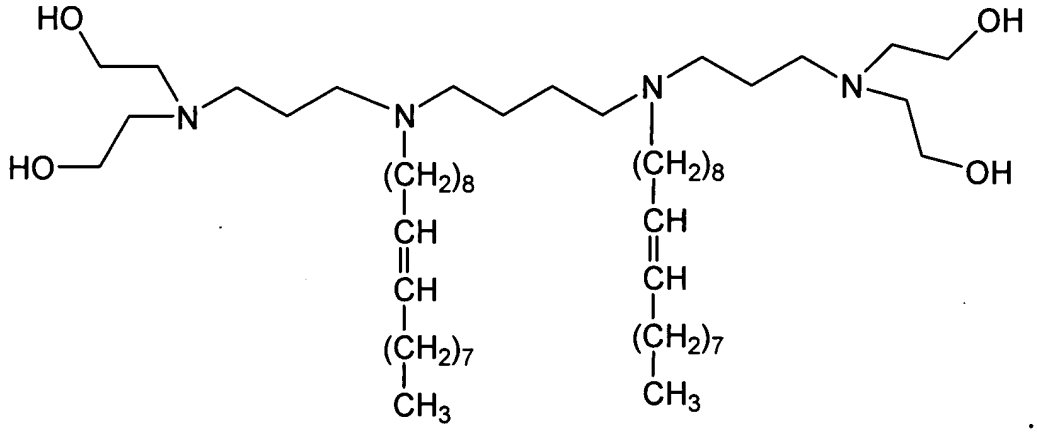
p is an integer from 1 to about 10;

L_1 and L_2, independently from one another, are an alkylene or an alkylene ether; and

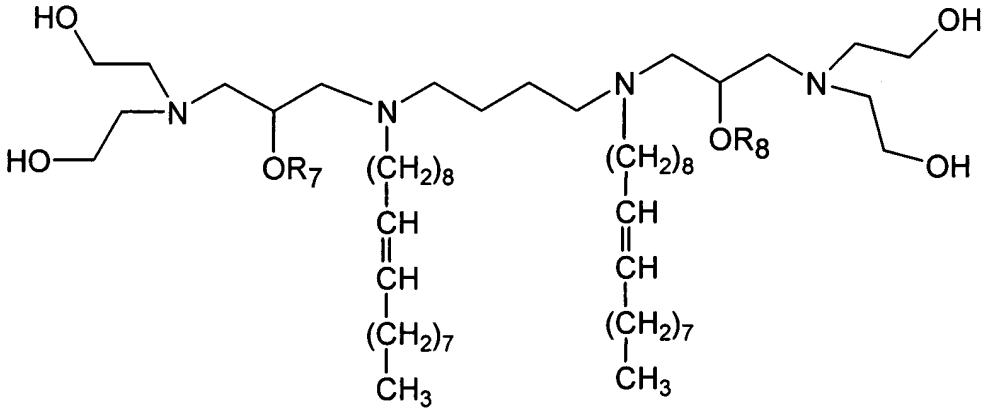
Y is selected from the group consisting of CH_2, O, S and NH.

56. (Previously presented) The compound as claimed in claim 55 wherein R_1 and R_4, independently of one another, are straight-chain, branched, or cyclic alkyl, alkenyl, alkynyl or aryl groups having from about 8 to about 24 carbon atoms.

57. (Previously presented) A compound having the formula:



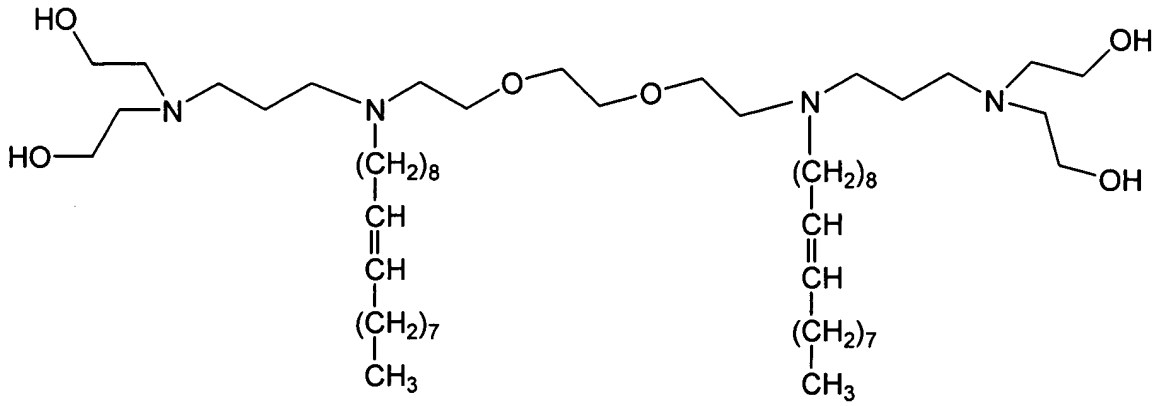
58. (Previously presented) A compound having the formula:



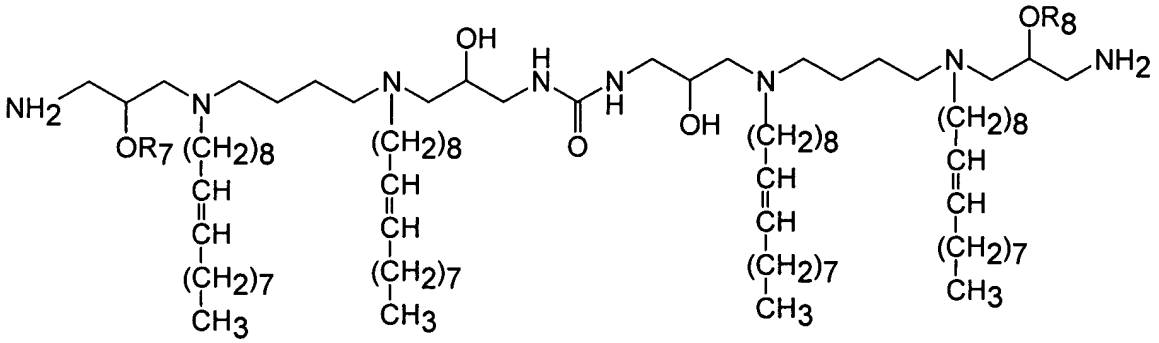
wherein R_7 and R_8 are independently H or a carbohydrate.

59. (Previously presented) The compound as claimed in claim 58, wherein R_7 and R_8 are H.

60. (Previously presented) A compound having the formula:



61. (Previously presented) A compound having the formula:

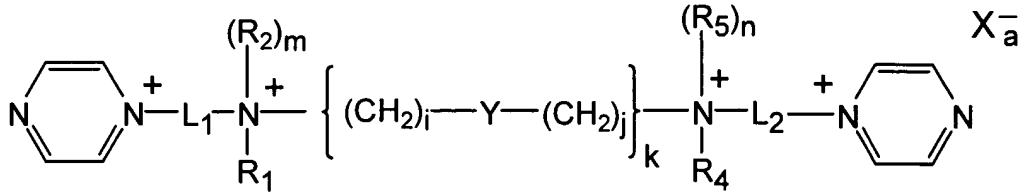


wherein R_7 and R_8 are independently H or a carbohydrate.

62. (Previously presented) The compound as claimed in claim 61, wherein R_7 and R_8 are H.

63. (Canceled)

64. (Previously presented) A compound having the formula:



wherein

X^- is a physiologically acceptable anion;

a is the number of positive charges in the compound divided by the valence of the anion;

each of R_1 and R_4 is a straight-chain, branched, or cyclic alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms;

R_2 and R_5, independently of one another, are selected from the group consisting of an alkenyl group, an aryl group, and an alkyl group optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

m and n are1;

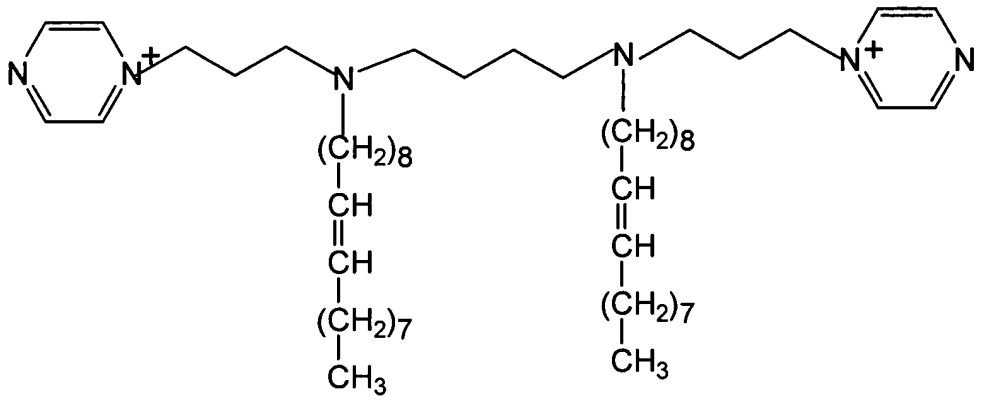
i and j are integers from about 2 to about 3;

k is an integer from 1 to about 3;

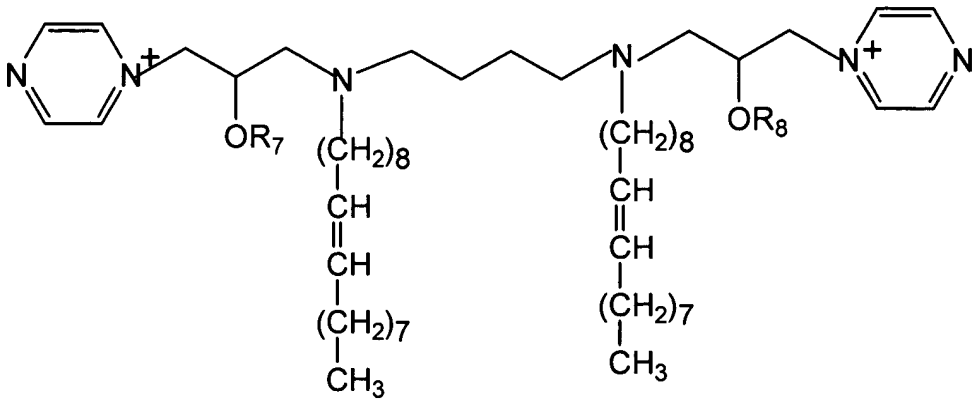
L_1 and L_2, independently from one another, are an alkylene or an alkylene ether; and

Y is selected from the group consisting of CH_2, O, S and NH.

65. (Previously presented) The compound which is:



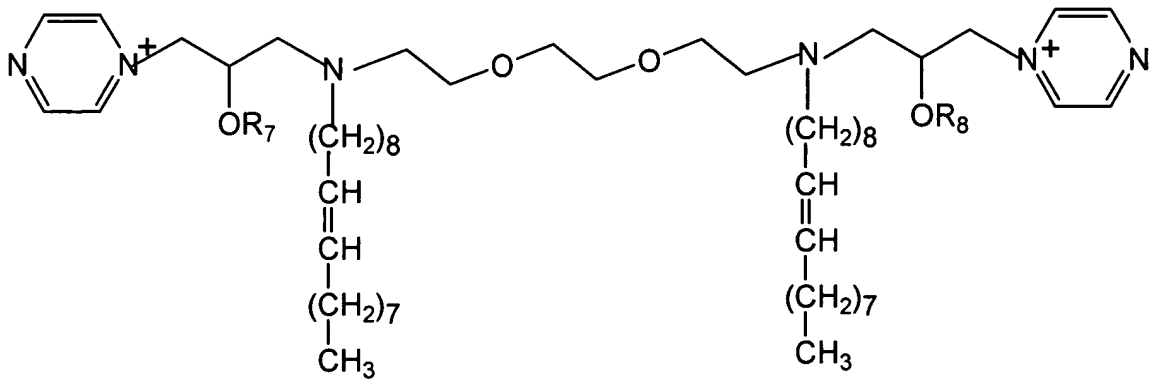
66. (Previously presented) A compound having the formula:



wherein R_7 and R_8 are independently H or a carbohydrate.

67. (Previously presented) The compound as claimed in claim 66, wherein R_7 and R_8 are H.

68. (Previously presented) A compound having the formula:

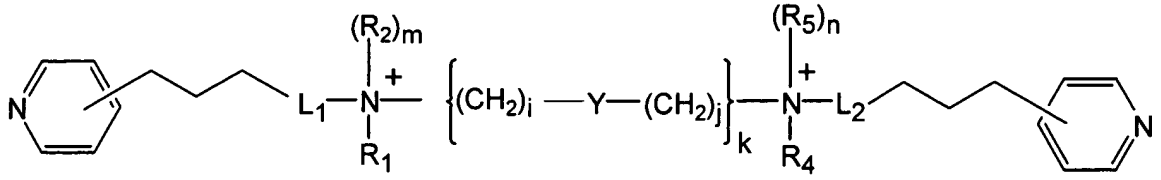


wherein R_7 and R_8 are independently H or a carbohydrate.

69. (Previously presented) The compound as claimed in claim 68, wherein R_7 and R_8 are H.

70. (Canceled)

71. (Previously presented) A compound having the formula:



wherein

each of R_1 and R_4 is a straight-chain, branched, or cyclic alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms;

R_2 and R_5, independently of one another, are selected from the group consisting of an alkenyl group, an aryl group, and an alkyl group optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

m and n are 1;

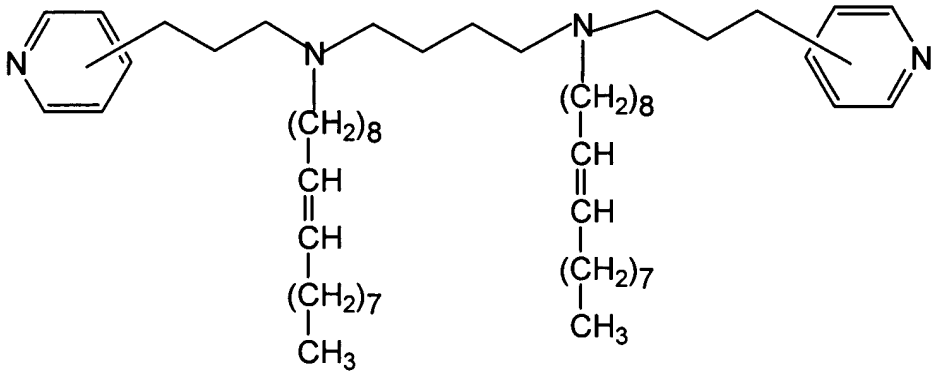
i and j are integers from about 2 to about 3;

k is an integer from 1 to about 3;

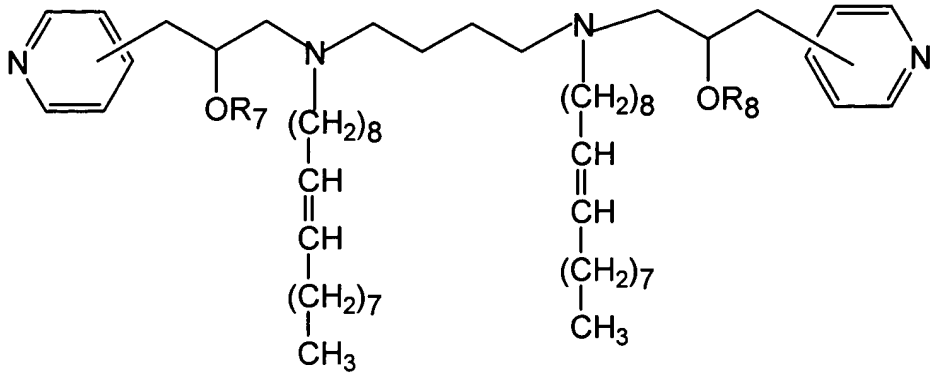
L_1 and L_2 independently from one another, are an alkylene or an alkylene ether; and

Y is selected from the group consisting of CH_2, O, S and NH.

72. (Previously presented) The compound which is:



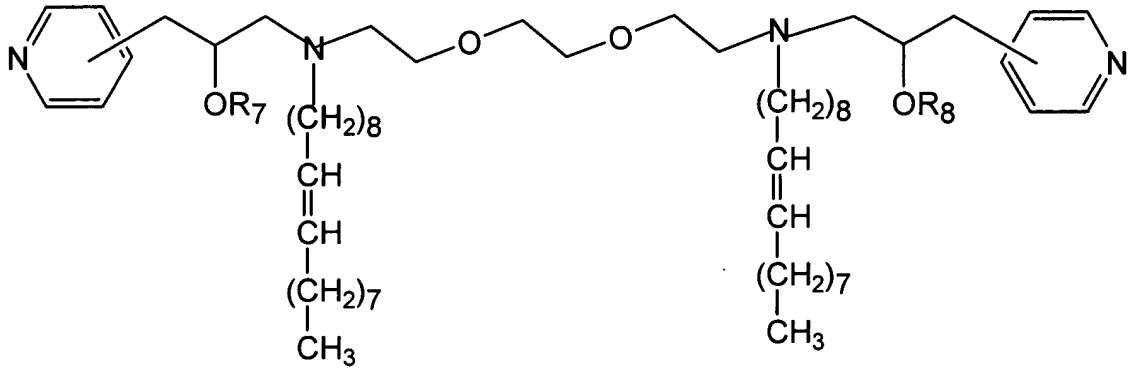
73. (Previously presented) A compound having the formula:



wherein R_7 and R_8 are independently H or a carbohydrate.

74. (Previously presented) The compound according to claim 73, wherein R_7 and R_8 are H.

75. (Previously presented) A compound having the formula:

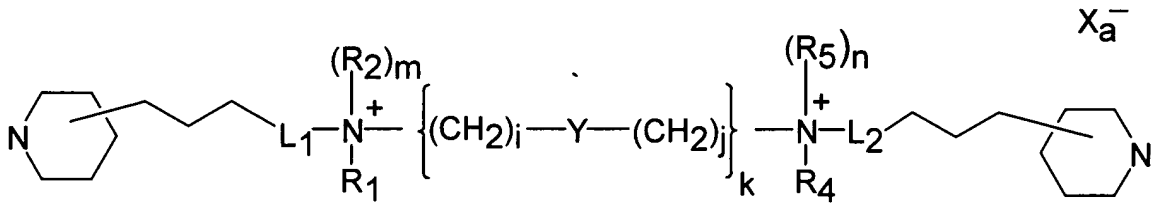


wherein R_7 and R_8 independently are H or a carbohydrate.

76. (Previously presented) The compound as claimed in claim 75, wherein R_7 and R_8 are H.

77. (Canceled)

78. (Currently amended) A compound having the formula:



wherein

X^- is a physiologically acceptable anion;

a is the number of positive charges in the compound divided by the valence of the anion;

each of R_1 and R_4 is a straight-chain, branched, or cyclic alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms;

R_2 and R_5 independently of one another, are selected from the group consisting of an alkenyl group, an aryl group, and an alkyl group optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

m and n are 1;

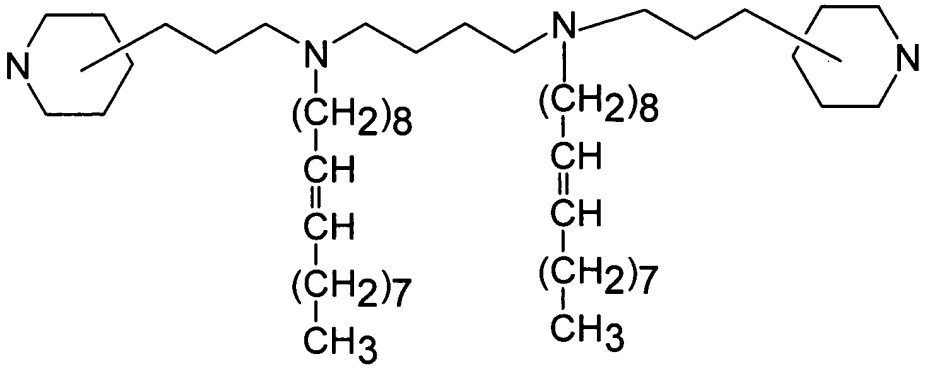
i and j are integers from about 2 to about 3;

k is an integer from 1 to about 3;

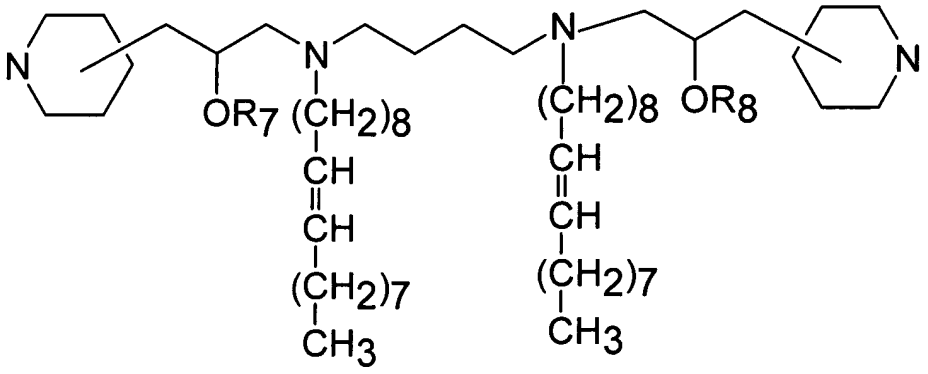
L_1 and L_2, independently from one another, are an alkylene or an alkylene ether; and

Y is selected from the group consisting of CH_2, O, S and NH.

79. (Previously presented) A compound having the formula:



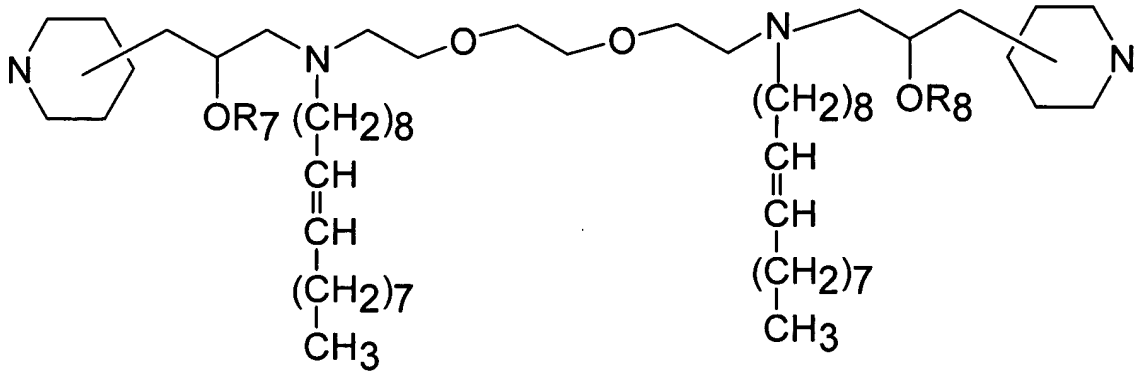
80. (Previously presented) A compound having the formula:



wherein R_7 and R_8 are independently H or a carbohydrate.

81. (Previously presented) The compound as claimed in claim 80, wherein R_7 and R_8 are H.

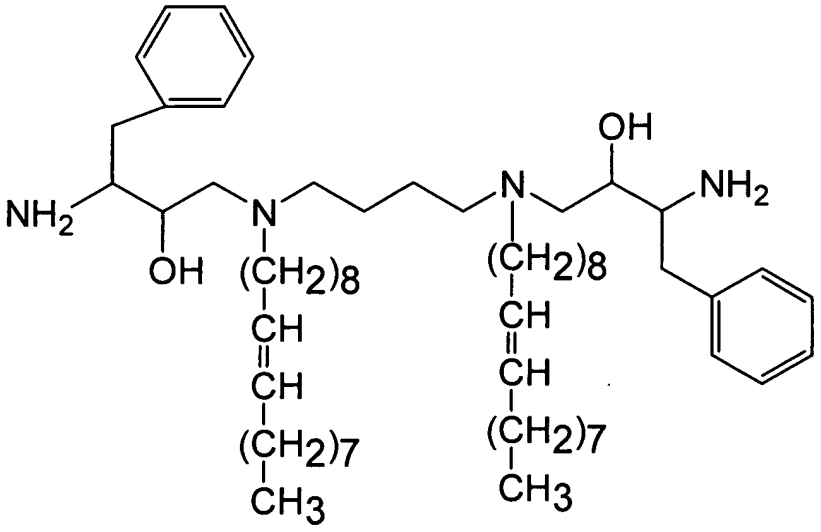
82. (Previously presented) A compound having the formula:



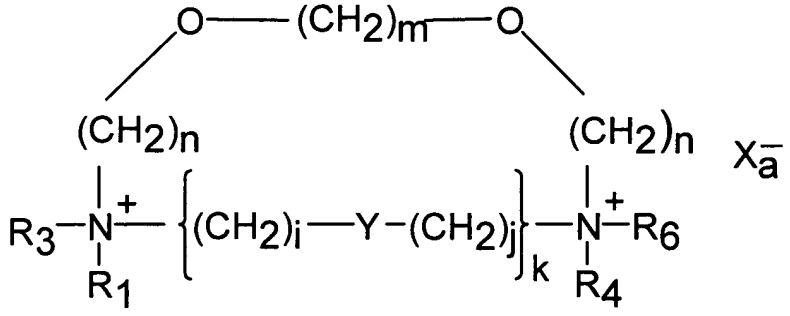
wherein R_7 and R_8 are independently H or a carbohydrate.

83. (Previously presented) The compound as claimed in claim 82, wherein R_7 and R_8 are H.

84. (Previously presented) A compound having the formula:



85. (Previously presented) A compound having the formula:



wherein

X^- is a physiologically acceptable anion;

a is the number of positive charges in the compound divided by the valence of the anion;

Y is selected from the group consisting of CH_2, an ether, a polyether, an amide, a polyamide, an ester, a sulfide, a urea, a thiourea, a guanidyl, a carbamoyl, a carbonate, a phosphate, a sulfate, a sulfoxide, an imine, a carbonyl, and a secondary amino group and wherein Y is optionally substituted by $-X_1-L'-X_2-Z$ or $-Z$;

R_1, R_3, R_4, and R_6, independently of one another, are selected from the group consisting of H, $-(CH_2)_p-D-Z$, an alkyl group, an alkenyl group, an aryl

group, an alkynyl group, and an alkyl ether group wherein any one of R_1, R_3, R_4, and R_6 are optionally substituted by one or more of an alcohol, an aminoalcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, an alkylthio, a urea, a thiourea, a guanidyl, or a carbamoyl group, and at least one of R_1, R_3, R_4, and R_6 is a straight-chain, branched, or cyclic alkyl, alkenyl, alkynyl or aryl group having from 6 to about 64 carbon atoms; and R_1, R_3, R_4, and R_6 may optionally be covalently linked with each other or with Y, to form a cyclic moiety;

Z is selected from the group consisting of amine, spermiyl, carboxyspermiyl, guanidyl, spermidinyl, putricinyl, diaminoalkyl, pyridyl, piperidinyl, pyrrolidinyl, polyamine, amino acid, peptide, and protein;

X_1 and X_2, independently of one another, are selected from the group consisting of NH, O, S, alkylene, and arylene;

L' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, alkylene ether, and polyether;

D is O, S, or a bond;

m and n are 1; and

i, j, k, l and p are integers from 1 to about 10.

86. (Previously presented) The compound as claimed in claim 85, wherein at least one of R_1 and R_4 is a straight-chain, branched, or cyclic alkyl, alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms.

87. (Previously presented) The compound as claimed in claim 85, wherein the alkyl ether optionally substituted by one or more alcohol groups is a carbohydrate.

88. (Previously presented) The compound as claimed in claim 87, wherein the carbohydrate is selected from the group consisting of galactose, fructose, glucose, maltose, sucrose, cellobiose, lactose, mannose, glucopyranose, mannopyranose and galactopyranose.

89. (Previously presented) The compound as claimed in claim 85, wherein Y is selected from the group consisting of CH_2, an ether, a polyether, an amide, a polyamide, an ester, a sulfide, a urea, a thiourea, a guanidyl, a carbamoyl, a carbonate, and a secondary amino group.

90. (Previously presented) The compound as claimed in claim 89, wherein at least one of R_1 and R_4 is a straight-chain, branched, or cyclic alkyl, alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms.

91. (Previously presented) The compound as claimed in claim 89, wherein the alkyl ether optionally substituted by one or more alcohol groups is a carbohydrate.

92. (Previously presented) The compound as claimed in claim 91, wherein the carbohydrate is selected from the group consisting of galactose, fructose, glucose, maltose, sucrose, cellobiose, lactose, mannose, glucopyranose, mannopyranose and galactopyranose.

93-100. (Canceled)

101. (Previously presented) A composition comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138.

102. (Previously presented) A composition comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one additional component selected from the group consisting of a cell, cells, a cell culture, a cell culture media, a neutral lipid, a nucleic acid, and a transfection enhancer.

103. (Canceled)

104. (Previously presented) A lipid aggregate comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138.

105. (Canceled)

106. (Canceled)

107. (Previously presented) A kit comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one additional component selected from the group consisting of a cell, cells, a cell culture medium, a nucleic acid, a transfection, enhancer and instructions for transfecting a cell or cells.

108. (Previously presented) A method for introducing a polyanion into a cell or cells, said method comprising forming a lipid aggregate from a positively charged compound of any one of claims12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138, contacting the lipid aggregate with a polyanion to form a positively-charged polyanion-lipid aggregate complex and incubating the complex with a cell or cells.

109. (Previously presented) A method for introducing a biologically active substance into a cell, said method comprising forming a lipid aggregate of a compound of any one of claims 112, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and a biologically active substance and incubating the lipid aggregate with a cell or cell culture.

110. (Canceled)

111. (Previously presented) A compound which is:

N^1,N^4-dipalmitolyl-N^1,N^4-di-[2-hydroxy-3-(N-aminopropyl)]-diaminobutane;

N^1,N^4-distearyl-N^1,N^4-di-[2-hydroxy-3-(N-aminopropyl)]-diaminobutane;

N^1,N^4-dilauryl-N^1,N^4-di-[2-hydroxy-3-(N-aminopropyl)]-diaminobutane;

N^1,N^2-dimyristyl-N^1,N^2-di-[2-hydroxy-3-(N-aminopropyl)]-diaminoethane;

N^1,N^2-dipalmity-N^1,N^2-di-[2-hydroxy-3-(N-aminopropyl)]-diaminoethane;

N^1,N^2-dipalmitolyl-N^1,N^2-di-[2-hydroxy-3-(N-aminopropyl)]-diaminoethane;

N^1,N^2-distearyl-N^1,N^2-di-[2-hydroxy-3-(N-aminopropyl)]-diaminoethane;

N^1,N^2-dilauryl-N^1,N^2-di-[2-hydroxy-3-(N-aminopropyl)]-diaminoethane;

N^1,N^8-dimyristyl-N^1,N^8-di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;

N^1,N^8-dipalmityl-N^1,N^8-di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;

N^1,N^8-dipalmitolyl-N^1,N^8-di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;

N^1,N^8-distearyl-N^1,N^8-di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;

N^1,N^8-dilauryl-N^1,N^8-di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;

N^1,N^8-dioleyl-N^1,N^8-di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;

N^1,N^4-dimyristyl-N^1,N^4-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminobutane;

N^1,N^4-dipalmityl-N^1,N^4-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminobutane;

N^1,N^4-dipalmitolyl-N^1,N^4-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminobutane;

N^1,N^4-distearyl-N^1,N^4-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminobutane;

N^1,N^4-dilauryl-N^1,N^4-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminobutane;

N^1,N^8-dimyristyl-N^1,N^8-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

N^1,N^8-dipalmityl-N^1,N^8-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

N^1,N^8-dipalmitolyl-N^1,N^8-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

N^1,N^8-distearyl-N^1,N^8-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

N^1,N^8-dilauryl-N^1,N^8-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

N^1,N^8-dioleyl-N^1,N^8-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

N^1,N^2-dimyristyl-N^1,N^2-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminoethane;

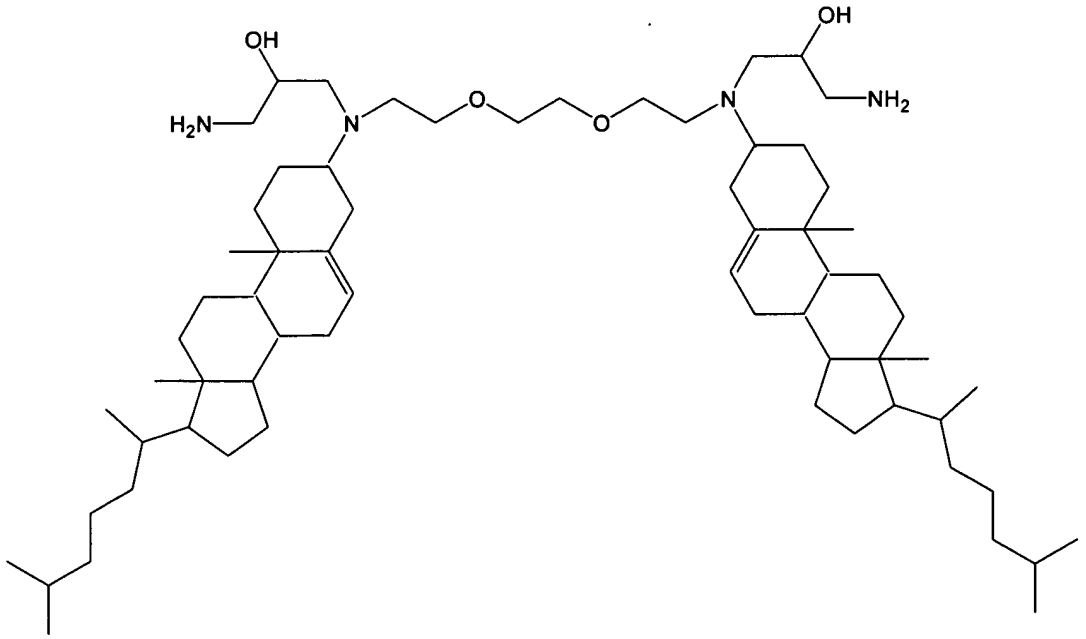
N^1,N^2-dipalmityl-N^1,N^2-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminoethane;

N^1,N^2-dipalmitolyl-N^1,N^2-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminoethane;

N^1,N^2-distearyl-N^1,N^2-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminoethane; or

N^1, N^2-dilauryl-N^1,N^2-di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminoethane.

112. (Previously presented) A compound which is:



113.-116. (Canceled)

117. (Previously presented) A composition comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one additional lipid aggregating compound.

118. (Previously presented) A composition comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one additional lipid aggregating compound selected from DOPE, DOPC or cholesterol.

119. (Previously presented) A composition comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one neutral lipid or at least one other cationic lipid.

120. (Previously presented) A composition comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one cationic lipid selected from the group consisting of DOSPA, DOTMA, DMRIE, DOTAP, DOGS and TM-TPS.

121. (Previously presented) A kit comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138.

122. (Currently amended) A kit comprising one or more compounds of any one of ~~claims 1~~ claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one additional lipid aggregating forming compound.

123. (Previously presented) A kit comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one additional lipid aggregating forming compound selected from DOPE, DOPC or cholesterol.

124. (Previously presented) A kit comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one neutral lipid or at least one other cationic lipid.

125. (Previously presented) A kit comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one other cationic lipid selected from the group consisting of DOSPA, DOTMA, DMRIE, DOTAP, DOGS and TM-TPS.

126. (Previously presented) A lipid aggregate comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one additional lipid aggregating forming compound.

127. (Previously presented) A lipid aggregate comprising one or more compounds of any one of claims12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one additional lipid aggregating forming compound selected from DOPE, DOPC or cholesterol.

128. (Previously presented) A lipid aggregate comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one neutral lipid or at least one other cationic lipid.

129. (Previously presented) A lipid aggregate comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, or 138 and at least one other cationic lipid selected from the group consisting of DOSPA, DOTMA, DMRIE, DOTAP, DOGS and TM-TPS.

130. Canceled

131. Canceled

132. Canceled

133. (Previously presented) A kit comprising a lipid aggregate comprising one or more compounds of any one of claims 12, 16, 21, 29, 32, 33, 35, 38, 41, 46, 49, 55, 64, 71, 78, 85, and 138 and at least one neutral lipid or at least one other cationic lipid.

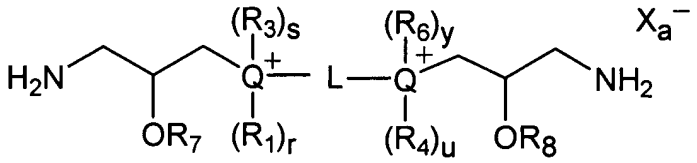
134. Canceled

135. (Previously presented) The compound of claim 12 wherein R_1, R_3, R_4, and R_6, independently of one another, are selected from the group consisting of H, and an alkyl group and at least two of R_1, R_3, R_4, and R_6, are straight-chain alkyl groups having from 8 to 24 carbon atoms attached to each N.

136. (Previously amended) The compound of claim 135 wherein at least two of R_1, R_3, R_4, and R_6, are straight-chain alkyl groups having 14 or 16 carbon atoms attached to each N.

137. (Canceled)

138. (Previously presented) A compound having the formula:



where:

Q is N;

L is a bivalent organic radical covalently linking each Q;

r, s, u and y are1;

X^- is a physiologically acceptable anion;

a is the number of anions which is equal to the number of positive charges in the compound divided by the valence of the anion;

R_1, R_3, R_4, and R_6, independently of one another, are selected from the group consisting of H, an alkyl group, an alkenyl group, an alkynyl group, and an aryl group, wherein any one of R_1, R_3, R_4, and R_6 are optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group, and at least two of R_1, R_3, R_4, and R_6, are straight-chain, branched, or cyclic alkyl, alkynyl, or alkenyl groups having from 8 to 24 carbon atoms attached to each N and R_1, R_3, R_4 and R_6 are optionally covalently linked with each other; and

R_7 and R_8 are independently H or a carbohydrate.

139. (Previously presented) The compound of claim 138 wherein R_1, R_3, R_4, and R_6, independently of one another, are selected from the group consisting of H, an alkyl group, an alkenyl group, or an alkynyl group.

140. (Previously presented) The compound of claim 138 wherein R_1, R_3, R_4, and R_6, independently of one another, are selected from the group consisting of H, and an alkyl group.

141. (Previously presented) The compound of claim 138 wherein R_7 and R_8 are H.

142 (Previously presented) The compound of claim 138 wherein two of R_1, R_3, R_4, and R_6 are alkyl groups having 14 or 16 carbons.